PROMPT COUPON REIMBURSEMENT AFTER COUPON REDEMPTION

FIELD OF THE INVENTION

The present application relates to systems for tracking customer purchase transactions. In particular, the present invention relates to systems for accurately tracking the use of coupons redeemed by consumers, and for promptly reimbursing retailers for discounts extended to consumers in exchange for coupons presented to the retailer.

BACKGROUND OF THE INVENTION

Coupons are typically distributed to consumers by consumer packaged goods manufacturers (PGM) as a marketing tool to encourage consumers to purchase their products. The coupons are distributed to consumers through any one of a number of different channels, including through newspapers as freestanding insert (FSI) coupons, advertising circulars, direct mailings, e-mail, and the Internet. To redeem a coupon, a consumer must generally present the coupon in connection with the purchase of a product identified on the coupon at a retail establishment. The retailer, upon receiving the coupon, will deduct the face value of the coupon from the total amount owed by the consumer. The retailer generally does not receive reimbursement for the discount extended to the consumer until the redeemed coupon has been subjected to a lengthy retailer redemption verification process.

In order to verify the legitimacy of discounts extended to consumers by retailers, product manufacturers generally require retailers to provide them with the original redeemed coupons in support of invoices seeking reimbursement. Accordingly, retailers typically

bundle together redeemed coupons and ship them to third party clearinghouses, which sort the redeemed coupons by product manufacturer. The sorted coupons, together with the retailer invoices, are then shipped to a manufacturer's agent. The manufacturer's agent, which in some instances may be associated with a clearinghouse, attempts to determine whether the invoice amount is supported by the redeemed coupons. In addition, the manufacturer's agent typically examines the redeemed coupons for evidence of fraud, which may be indicated by a large number of evenly cut coupons or by counterfeit coupons. The manufacturer's agent then may issue a check to the retailer through the clearinghouse as reimbursement for the value of the coupons verified by the agent as genuine. Any invoiced amount that is not adequately supported by the provided original coupons will not be paid by the manufacturer or its agent. Retailers often respond to such "chargebacks" by deducting the amount of the chargeback from amounts paid to the product manufacturers for products delivered to the retailer. Where a check is issued for the retailer, it is generally not received until six to eight weeks after the original discount was extended to the consumer by the retailer. Accordingly, the redemption of manufacturer coupons requires retailers to forego receipt of full value for items purchased using a coupon for a significant period of time.

In addition to the significant time delays involved in the processing of coupons using traditional methods, such methods are also vulnerable to fraud and do not provide product manufacturers with timely marketing data. For instance, there is no way for a manufacturer to precisely determine whether the redemption of a coupon was accompanied by a bona fide product sale. This is because traditional methods of coupon redemption do not correlate a specific product sale to each specific redeemed coupon at the time of redemption at the store.

The redeemed coupons are not segregated according to the store at which they were redeemed and there is no accurate data that correlates coupons and sales of products. Instead, manufacturers have only a general idea of the volume of product sales expected for particular retail chains. Accordingly, fraud can usually only be detected by product manufacturers if it is carried out on a large scale. Additionally, product manufacturers do not receive timely or accurate marketing data using traditional coupon redemption and verification methods. This is because coupons are often bundled together by retail chain rather than by a particular retail outlet. In addition, the manufacturer receives no information regarding the date and place of redemption, or regarding the precise products or product configuration purchased in connection with the redemption of the coupon.

For the above stated reasons, it would be beneficial, as supported by the Joint Industry Coupon Council (JICC), to enhance the redemption of coupons, particularly providing for prompt reimbursement to retailers for discounts extended by them to consumers. Furthermore, it would be advantageous to provide the issuers of coupons with accurate and timely information concerning the circumstances of the coupon redemption and to enable the issuer to verify the validity of coupon redemptions. In addition, it would be advantageous to provide such a method and apparatus that can be implemented at an acceptable cost and that is operated by a third party who is trustworthy and reliable.

SUMMARY OF THE INVENTION

In accordance with the present invention, a system for accurately tracking the use of coupons and for promptly reimbursing retailers for discounts extended in exchange for such coupons is provided. The disclosed system generally includes a coupon redemption subsystem interconnected to a point-of-sale (POS) subsystem by a communications channel. In one embodiment, a passive tap from the POS controller is employed. The system can record the same transactions as the retailer does. A transaction log is generated that enables the system to provide coupon information and product UPC information. The POS subsystem can include a main computer or server of the retailer that commonly communicates with a number of check-out stations at which products are purchased, such as grocery items offered by a supermarket retailer. Each check-out station includes a cash drawer or electronic cash register (ECR), together with a product scanner. The product scanner reads the UPC (universal product code) on the product as part of the check-out procedure. In general, the coupon redemption subsystem is adapted to interface with this point-of-sale subsystem to receive information regarding the sale of products and any associated discounts (e.g. coupons being redeemed) from the point-of-sale subsystem. In addition, the coupon redemption subsystem is adapted to store information associated with redeemed coupons and to attempt to match that information to product sale and discount information downloaded from the point-of-sale subsystem.

In operation, information regarding product sales and discounts is entered into the point-of-sale subsystem by retailer personnel. Coupons redeemed in connection with consumer transactions are collected by the retailer personnel. According to one embodiment

of the present invention, the redeemed coupons are input and stored in a secure container (e.g. a safe or lock box) that is not accessible to retailer personnel.

A suitable number of such redeemed coupons are collected by the retailer. The suitable number is based on a plurality of different customer transactions with the retailer typically occurring throughout a day, week or other acceptable time interval. After being collected and placed in the secure container, coupon verification personnel, preferably a third party not affiliated with the retailer, remove the coupons and cause coupon information to be input into the coupon redemption subsystem. The coupon information is input using a reader, scanner, or other coupon information input device that is separate and different from the scanner or input device of the point-of-sale subsystem. This information is also stored in the coupon redemption subsystem. Information regarding product sales and discounts extended by the retailer to consumers in connection with product sales is downloaded from the point-of-sale subsystem to the coupon redemption subsystem. The download may occur as an automatic transfer of files at periodic intervals including real time or substantially real time, or as a transfer of files prior to the verification of coupon redemptions by the coupon verification personnel. This download may occur over the communications channel, or may be accomplished by transferring a removable storage medium from the point-of-sale subsystem to the coupon redemption subsystem. In yet a further alternative, information from the point-of-sale subsystem may be transferred to the coupon redemption subsystem in real time.

After the information relating to redeemed coupons has been entered into the coupon redemption subsystem, and sales information has been downloaded from the point-of-sale subsystem, the coupon redemption subsystem establishes matches between the redeemed coupons and product sales. In connection with those coupons for which a match is successfully made, payment is made to the retailer in the amount of the face value of the coupon. Payment may be made to the retailer by check, electronic funds transfer, or other mutually acceptable payment. According to one embodiment, payment is made by a check printed using the coupon redemption subsystem before the coupon verification personnel leave the retailer premises. With respect to making of the payment of coupons that have been properly redeemed and verified, such payment is usually made within three days and preferably within one day (e.g., same day) of a proper coupon being redeemed by the retailer. Coupons not cleared or unverified may later be cleared for payment, although such payment is made after a considerably longer period of time. In no event is such a payment for verified coupons made more than ten days from the redemption of that coupon which is being reimbursed. In that regard, a single payment to the retailer typically handles or covers a significant number of redeemed coupons that are a result of coupon transactions with a number of different customers. For example, the payment to the retailer can cover coupon redemptions involving at least ten different customers. Prior to or concurrent with payment to the retailer, ownership of such redeemed coupons is transferred from the retailer to the coupon verification personnel so that ownership rights in the reimbursed coupons can pass to this third party from the retailer before these coupons are allowed to be transferred or moved from the retailer's facility.

Information collected concerning the redemption of coupons is provided to both the retailer and the product manufacturers whose coupons have been redeemed. In particular, the retailer is provided with a summary of coupons redeemedincluding product information represented by the bar code, in connection with all product manufacturers and the particular product associated with the redemption. Each product manufacturer is provided with information concerning the redemption of coupons it has authorized and correlated with sales of its products. This information may include the location, date and time of the product sales, and where available, information concerning the individual consumer. This information may be made available to the manufacturer over a computer network, such as the Internet, and may be made available in substantially real time.

Additional advantages of the present invention will become readily apparent from the following discussion, particularly when taken together with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram of a coupon redemption system according to an embodiment of the present invention;

Fig. 2 is a block diagram of a point of sale system useable with an embodiment of the present invention;

Fig. 3 is a block diagram of a coupon redemption system according to an embodiment of the present invention;

Fig. 4 is a flow chart illustrating the major steps taken in redeeming coupons according to the system of the present invention;

Fig. 5 is a flow chart of the operation of a coupon redemption system according to an embodiment of the present invention;

Fig. 6 is a flow chart of the coupon verification process according to an embodiment of the present invention;

Fig. 7 is a representative example of a retailer report, release and check in accordance with an embodiment of the present invention;

Fig. 8 is a flow chart representing the flow of information concerning coupons redeemed according to an embodiment of the present invention; and

Fig. 9 is representative of an invoice to a manufacturer by a third party coupon verifier for coupons purchased by the third party verifier from a retailer.

DETAILED DESCRIPTION

Fig. 1 illustrates a coupon redemption system **100**. The coupon redemption system **100** generally includes an auxiliary computer or coupon redemption subsystem **104**, a communications channel **108** and a point of sale (POS) subsystem **112**. The system **100** may also include a second communications channel **116**, which may be used to interconnect the coupon redemption subsystem **104** to a coupon redemption authority **120** and/or to a data center **124**.

The communications channel **108** serves to transfer information between the coupon redemption subsystem **104** and the point of sale subsystem **112**. Accordingly, the communications channel **108** may comprise a computer network, such as a local area network (LAN), for example an Ethernet network, or a wide area network (WAN), for

example the Internet or a token ring configuration or any other acceptable communication setup and/or protocol. The channel **108** may also comprise standard or proprietary serial or parallel type interconnections. The channel **108** cooperates with appropriate communications interfaces **216** and **316** provided as part of the point of sale **112** and coupon redemption **104** subsystems respectively.

In general the point of sale subsystem is used to track sales of retail goods to consumers. **Fig. 2** represents a point of sale subsystem **112** useable with the coupon redemption subsystem **104** of the present invention. In general, the point of sale subsystem **112** includes a server **200** having associated storage **204**, memory **208** and a processor **212**. In addition, the server **200** may include communications **216** and peripheral **220** interfaces as required by the particular communications channel **108** and peripheral devices interconnected to the server **200**. In a typical point of sale subsystem **112**, the server **200** includes an Intel Pentium™ class processor **212** with a suitable hard disk and/or tape drive as the storage **204** and 64 Mb of solid state memory **208**.

The peripheral devices associated with the point of sale subsystem **112** may include a display **224**, such as a cathode ray tube or flat panel type display, and any one of a variety of input/output devices **228**. The input/output devices **228** may include a printer **232**, a scanner **236**, a keyboard **240**, a mouse **244** and a scale **248**. The subsystem **112** may also be interconnected to a cash drawer **252**.

In operation, the point of sale subsystem **112** is used to record sales of items to consumers. Accordingly, information regarding each product sold to a consumer is entered into the point of sale subsystem **112** using one or more of the input/output devices **228**. For

example, a cashier at a check-out station or point of sale may read a universal product code (UPC) using the scanner **236**. The information read from the UPC may then be stored in the computer storage **204** of the server **200**. If the consumer presents a coupon associated with the product, the cashier may discount the amount due from the consumer by the face value of the coupon. The value of the coupon may be entered into the point of sale subsystem **112** by scanning a bar code from the coupon using the scanner **236**, a separate scanner, reader or other input device, or the cashier may enter the information manually by, for example, entering the amount of the discount using the keyboard **240**. Information regarding redeemed coupons or discounts entered by the cashier may also be stored in the computer storage **204**. As can be appreciated, there is usually a number of check-out stations. At each check-out station, a cashier is involved with checking out products being purchased and redeeming associated coupons for one or more of such products. Each of the check-out stations typically has its own scanner for handling the sales of products having UPCs. Each such scanner, and/or another coupon reader separate from the scanner, is used to input coupon information to the server **200**.

Fig. 3 is a block diagram representing the coupon redemption subsystem **104**. As shown in **Fig. 3**, the coupon redemption subsystem **104** includes a central processing unit (CPU) **300** having data or information storage **304**, program memory **308** and a processor **312**. The CPU **300** may also include communications interfaces **316** and peripheral interfaces **320**. Peripheral devices associated with the coupon redemption subsystem **104** may include a display **324**, such as a cathode ray tube (CRT) or flat panel display, including a touch screen type display, and various input/output devices **328**. The input/output devices

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328 may include a printer 332, a scanner 336, a keyboard 340, and a mouse or other pointing device 344.

In general, at least one of the communications interfaces 316 cooperates with the communications channel 108 and at least one of the communications interfaces 216 of the point of sale subsystem 112 to pass information between the coupon redemption subsystem 104 and the point of sale subsystem 112. As noted above, the communications channel 108 may comprise a variety of channel types. In particular, where the communications channel 108 comprises a conventional local or wide area network, the communications interfaces 216 and 316 may comprise appropriate network interface cards. Where the channel 108 comprises a hard wired serial (*e.g.*, RS 232 or USB) or parallel (*e.g.*, SPP or EPP) interconnection, the communications interfaces 216 and 316 may comprise the ports conventionally provided on the CPU 300 or server 200. The communications network 108 may also comprise the public switched telephone network (PSTN), in which case the communications interfaces 216 and 316 may comprise modems. Where the communications channel 108 comprises the Internet, the communications interfaces 216 and 316 may comprise whatever interface is required by the coupon redemption subsystem 104 or the point-of-sale subsystem 112 to establish a connection to the Internet. It should be appreciated that any combination of communications channel 108 types may be utilized, and that the communications interface 216 of the point-of-sale system 112 need not be the same as the communications interface 316 of the coupon redemption subsystem 104. For example, the communications interface 316 of the coupon redemption subsystem 104 may comprise a modem for interconnecting the coupon redemption subsystem 104 and an Internet server

(not shown), while the communications interface **216** of the point-of-sale system **112** may comprise a network card for interconnecting the point-of-sale subsystem **112** over a local area network to a server or router (not shown) in communication with the Internet. Accordingly, in the above example, the communications channel **108** comprises the PSTN, the Internet and a local area network.

In addition to conventional techniques for interconnecting computers such as those discussed above, the coupon redemption subsystem **104** and point-of-sale subsystem **112** may be interconnected by a proprietary type communications channel **108**. Of course, the communications interfaces **216** and **316** need to be appropriate to the communications channel **108** utilized. For example, the coupon redemption subsystem **104** may "listen in" to activity occurring on the point-of-sale subsystem **112**, and make a record of that activity in real time. Such monitoring of the point-of-sale subsystem **112** requires interfaces **216** and/or **316** that are capable of detecting the activity to be monitored and translating that activity into a signal that can be understood by the coupon redemption subsystem **104**. The information monitored on the point-of-sale subsystem **112** may include information stored in the storage **204** of the point-of-sale subsystem **112** as part of the operation of the point-of-sale subsystem **112**. Alternatively, information transferred between the various input/output devices **228** and the server **200** of the point-of-sale subsystem **112** may be monitored by the coupon redemption subsystem **104** and stored in storage **304**.

From the above discussion, it should be appreciated that information may be transferred from the point-of-sale subsystem **112** to the coupon redemption subsystem **104** either in batches, or in real-time. Additionally, it should be appreciated that the

communications channel **108** may serve to continuously interconnect the coupon redemption subsystem **104** to the point-of-sale subsystem **112**. Alternatively, the channel **108**, whether physical or virtual, may interconnect the coupon redemption subsystem **104** to the point-of-sale subsystem **112** only when transfers of information are taking place. In addition to the communications channel **108** interconnecting the coupon redemption subsystem **104** to the point of sale subsystem **112**, a second communications channel **116** may be provided to interconnect the coupon redemption subsystem **104** to a coupon redemption authority **120** and/or to a data center **124**.

The coupon redemption subsystem **104** may be configured such that it is easily portable. When so configured, coupon verification personnel may carry the coupon redemption subsystem **104** with them to each retailer location. Alternatively, the coupon redemption subsystem **104** may be kept in a back office or other area of the retail location at which the coupons are deemed. In another embodiment, the coupon redemption subsystem **104** may be maintained off-site from the premises of the retail location at which coupons are being redeemed. For example, the coupon redemption subsystem **104** may be at a facility under the control of the coupon verification third party or entity, which location may receive redeemed coupons from one or more different retailers. Accordingly, the coupon redemption subsystem **104** is not located at the check-out station or other area where products are being purchased. The coupon redemption subsystem **104** is usually located at least twenty feet away from at least one check-out station of the retailer, who is utilizing or relying on the services associated with the coupon redemption subsystem **104.** Where the coupon redemption subsystem **104** is to remain at the retailer location, it may be provided

with an integrated secure storage container (e.g. a safe or lock box) for holding redeemed coupons until the proper redemption of those coupons can be verified by coupon verification personnel.

With reference now to **Fig. 4**, the major operational steps taken in redeeming coupons according to the present invention are illustrated. Initially, at step **400**, a record is made of products sold to a consumer during a transaction in the point of sale subsystem **112**. In addition, a record is made of any discounts provided by the retailer in connection with the transaction such as those associated with redeemed coupons. These records may be stored in the storage **204** associated with the point of sale subsystem **112**. These steps are generally taken by the retailer in the normal course of completing a sale. As should be understood, such records being made related to coupons or other discounts and products being purchased are commonly conducted at each of a number of check-out stations. Regarding coupon transactions, these entail a number of different customers with one or more coupons that are redeemed over a definable time interval. Accordingly, the storage 204 keeps track of product purchases and coupons being redeemed by a number of check-out stations involving a number of different customer purchases or transactions.

At step **404**, third party verification of the proper redemption of any coupons associated with a transaction is made using the coupon redemption subsystem **104**, as will be discussed in more detail below. Next, at step **408**, the retailer is reimbursed for discounts provided to consumers as a result of the proper redemption of coupons. At step **412**, a report is provided to each product manufacturer whose coupons have been redeemed. The report provides various information concerning the circumstances of the coupon redemptions in

connection with each manufacturer's products. Each manufacturer then makes payment to the third party verification provider in the amount of the reimbursements made to retailers attributable to coupons issued and/or authorized by each product manufacturer, plus a customary handling fee (step **416**).

Fig. 5 is a flow chart illustrating the steps of recording sales information (step **400**), third party verification of proper coupon redemption (step **404**) and payment of verified coupon amounts to the retailer (step **408**) illustrated generally in **Fig. 4**. Initially, at step **500**, the sale of a product is entered into the point of sale subsystem **112**. The information entered regarding the sale of a product may include such particulars as the product code, batch number, date of manufacture and/or expiration, product size and/or packaging configuration, etc. Information concerning the location of the retailer and information concerning the identity of the consumer may also be stored in connection with the sale of the product, as well as the date and time the transaction was completed. The information recorded concerning the sale of the product may be stored in the storage **204** associated with the server **200** of the point of sale subsystem **112**.

The cashier may then, at step **504**, enter information concerning any coupons or discounts associated with the sale of a product. For instance, the cashier may enter simply the amount of the discount manually by, for instance, typing that information using the keyboard **240** of the point of sale subsystem **112**. Such discount information may or may not be associated with the collection of a coupon authorized by a manufacturer. Therefore, it will be appreciated that a valid coupon is not necessary in order for a cashier to issue a discount using a typical point of sale subsystem **112**. Where a discount is associated with

a manufacturer authorized coupon, information regarding the discount may also be entered by scanning a bar code provided on the coupon using the scanner **236**, by reading coupon information using a coupon reader or other input device, or by manually entering information identifying the coupon. The cashier may also simply enter the amount of the discount provided to the consumer. After the products sold and any discounts have been entered into the point of sale system, payment of the total amount due, plus any taxes or other charges, but less the amount of any discounts entered, is collected from the consumer by the retailer (step **508**). Where coupons are associated with the transaction, they are collected by the cashier and placed in a secure storage container or otherwise collected for later verification (step **512**). Preferably, a secure storage container is used that allows only the third party verification service provider to access the redeemed coupons following a number of customer transactions or following the cashier's shift. For example, access to the redeemed coupons in the secure container may be made at periodic intervals, such as greater than three hours. Such access or subsequently utilizing the coupon redemption subsystem **104** involves more than one customer. For example, use of the coupon redemption subsystem **104** by coupon verification personnel involves at least ten customers, each of which redeemed at least one coupon.

The secure storage container(s), having the redeemed coupons, is (are) available to coupon verification personnel at step **516**. In general, the coupon verification personnel visit retailer locations periodically in order to verify and otherwise process redeemed coupons. Where the volume of redeemed coupons at a retailer location is sufficiently high, for example 500 or more redeemed coupons per day, the coupon verification personnel preferably travel

to the retailer location daily to perform the verification procedure. Where coupon volumes do not warrant daily visits by coupon verification personnel, those visits may be less frequent.

At step **520**, the records of product sales collected at step **500** are downloaded to the coupon redemption computer or server **300**. This download of information may be accomplished in any one of a number of ways. For example, the information may be downloaded from the point of sale subsystem **112** after the coupon verification personnel have arrived at the retailer location. Alternatively, sales records may be downloaded in batches to the coupon redemption system **104** automatically, either at predetermined time intervals or after the occurrence of predetermined events. As a further example, the coupon redemption system **104** may monitor activity occurring in the point of sale subsystem **112** and automatically record sales information in real time. Although the download of information typically occurs over the communications channel **108**, it may also be performed by a manual transfer of files containing the information to be downloaded. For example, a removable storage medium, such as a floppy disk, may be used to transfer information from the point of sale subsystem **112** to the coupon redemption subsystem **104**.

At step **524**, the coupon verification personnel retrieve the redeemed coupons from the secure storage container, and enter coupon identifying information into the coupon redemption subsystem **104**. The identifying information may be entered into the coupon redemption subsystem **104** by reading information from the coupons using the scanner **336** or a coupon reader that might be controlled to destroy (e.g. shredding), or otherwise render unuseable, the coupon after it has been verified or accepted. Alternatively, identifying

information may be entered manually, such as by using the keyboard **340**. Information may be stored in the storage **304**, and may include all of the identifying information encoded on the coupon, such as the face value, the product the coupon applies to, the expiration date of the coupon and information concerning the distribution method and/or recipient of the coupon.

It should be noted that steps **520** and **524** may be taken in any order with respect to one another, or they may taken concurrently. Following the completion of steps **520** and **524**, the redeemed coupons are matched with product sales by the coupon redemption subsystem **104** (step **528**). Information regarding properly redeemed coupons may be stored in the coupon redemption subsystem **104** (step **540**). A report summarizing the redemption information may then be provided to the manufacturer (step **544**). Preferably, each manufacturer is provided with information concerning the redemption of coupons authorized by the manufacturer in question.

With reference now to **Fig. 6**, the steps taken in accordance with one embodiment of the present invention in order to verify the proper redemption of coupons are illustrated in detail. At step **600**, the discounts and product sales entered in the point-of-sale subsystem **112** and downloaded to the coupon redemption subsystem **104** are compared to the audit or verifying coupons that have been input (e.g. read or scanned) into the coupon redemption subsystem **104** (step **600**).

The audit or verifying coupons being accessed were placed in the secure storage container by a person manually carrying the verifying coupons from each check-out station to the location having the secure storage container. In one embodiment, the cashier or other

retailer employee manually carries redeemed coupons to be verified for insertion or other placement into the secure storage container, although an employee of the third party verifying entity might perform this task. When all coupons in the secure storage container are properly redeemed coupons, the audit coupons are the same as the redeemed coupons. That is, when coupons are being properly redeemed, there should be no difference between the audit coupons placed in the secure storage container and the redeemed coupons. However, it can occur that there is a difference between the redeemed coupons and the audit coupons. For example, store personnel, such as the cashier, may place in the secure storage container one or more coupons that are not properly redeemed coupons. Such placement could occur inadvertently or intentionally. In such a case, such an audit coupon was probably not scanned by the retailer's scanner.

After such information is received, the coupon redemption subsystem **104** then determines whether there is a match between the discount extended, a product sale, and a redeemed coupon (step **604**). Generally, a valid match occurs where the amount of the discount is equal to the face value of the coupon, the consumer transaction includes the sale of a product for which the redeemed coupon was issued, and an audit or verifying coupon has been scanned into the coupon redemption subsystem **104** by the third party verification personnel. Accordingly, the coupon redemption subsystem **104** correlates the information scanned into that subsystem by the third party verification personnel to product sale and discount information downloaded from the point-of-sale subsystem **112**.

If a proper match is found to exist between the information from the point-of-sale subsystem **112** and the input coupon information, the face amount of the redeemed coupon

may be paid to the retailer by the third party verifier or verification service (step **608**). Concurrent with or prior to payment of the face value of the redeemed coupons to the retailer, ownership of the verifying coupons is transferred from the retailer to the third party verification service (step **608**).

At step **612**, a report of the redeemed coupons is provided to the retailer. This report may include information identifying the product and face value of the coupon, and any other information that has been downloaded from the point-of-sale subsystem **112** or scanned or otherwise entered into the coupon redemption subsystem **104** during the coupon verification process. According to one embodiment of the present invention, the report of redeemed coupons, a release of the verifying coupons transferring ownership of those coupons from the retailer to the third party verification service, and a check are printed using the printer **332** of the coupon redemption subsystem **104** at the close of the coupon redemption session. An example of a combined retailer report, release and check is illustrated in **Fig. 7**. Accordingly, payment of the amounts by which the retailer has properly discounted sales to consumers in response to the receipt of valid coupons may be made immediately following the coupon verification process, and closely following acceptance of the coupon by the retailer. For instance, where the verification process is conducted daily, reimbursement for discounts extended to consumers by the retailer can be provided to the retailer daily. Alternatively, a check may be issued by a central office of the coupon verification service, or an electronic funds transfer may be made. Reimbursement is made to the retailer within at least ten days of the completion of the coupon verification process and, preferably, within five days of the retailer crediting the customer for the coupon amount. More preferably,

payment is made to the retailer immediately (same day or next day) following completion of the verification process.

According to one embodiment of the present invention, information concerning the redemption of coupons may be transmitted from the CPU **300** of the coupon redemption subsystem **104** to a data center **124** over the second communication channel **116**. Preferably, the data center **124** collects and collates information received from various coupon redemption subsystems **104**. The third party verification service may then provide each manufacturer with a comprehensive report of coupon redemptions. These reports may contain any of the information downloaded to, scanned by, or otherwise collected by the coupon redemption system **104** (step **612**). According to one embodiment of the present invention, the information stored in the data center **124** may be accessible by the manufacturer directly. For instance, manufacturers may be allowed to search the data center using a connection established over the Internet. Alternatively, reports may be prepared by the third party verification service and provided to the manufacturer. According to one embodiment of the present invention, the manufacturer may specify the format of and information included in the provided report. For instance, the manufacturer may request information concerning selected time periods or regions of various scope. The manufacturer may also request information concerning particular retailers, stores or even lanes in a store. Information on the report may also be limited to particular categories or product codes. Additionally, information regarding redeemed coupons may be limited to particular family, offer or value codes. The report may also include coupons verified electronically and/or manually.

Within the general queries formulated by selecting items such as those described above, the returned information may be subdivided into various groupings. For instance, the information may be grouped according to the time period, region, retailer, product, coupon or clearing method. Furthermore, reports may be requested in summary form, or as complete listings.

In order to obtain reimbursement for amounts paid to retailers on behalf of the product manufacturers, as illustrated in **Fig. 9**, the third party verification service may provide an invoice to each product manufacturer. The invoice may summarize such items as the number of coupons verified, the total face value of the coupons, a calculation of the redemption fee, and a total amount owed to the third party verification service. In addition to providing such information for the period covered by the invoice (*e.g.* a single day), the invoice may provide year-to-date information. A report, as described above, may be enclosed with the invoice.

Optionally, the manufacturer may also be provided with the original verifying coupons. If the manufacturer desires, it may conduct its own audit of the verifying coupons and the report of discounts paid for by the third party verification service.

Following receipt of the invoice, the manufacturer may make payment to the third party verification service in the amount of the face value of the redeemed coupons, plus the handling fee (step **616**).

If at step **604** a match cannot be made among a discount, product sale and an input coupon, the verifying coupons are sent to the manufacturer for processing (step **620**). The processing by the manufacturer may comprise the steps conventionally taken by the

manufacturer to verify the proper redemption of coupons. Accordingly, the provision of verifying coupons to the manufacturer may comprise the provision of all un-matched coupons relating to the manufacturer to the manufacturer's agent for examination. In addition, the manufacturer or manufacturer's agent may be provided with information collected by the point-of-sale system **112** and/or information entered into the coupon redemption system **104**. For instance, such information may be provided to a coupon redemption authority **120** using the second communications channel **116**.

If the manufacturer decides to accept the coupon (step **624**) the third party verification service receives the face value of the accepted coupon plus a handling fee (step **628**). The face value of the accepted coupons may then be paid by the third party verification service to the retailer (step **632**). A manufacturer may choose to accept an improperly redeemed coupon for a variety of reasons. For instance, the manufacturer may wish to maintain cordial relationships with its retailers. In addition, in view of the detailed sales information that may be provided by the present invention, even in connection with redemptions not verified by the third party service, the manufacturer may find that consumers are redeeming coupons intended for particular product configurations for alternate configurations. For example, the manufacturer may issue a coupon intended only for a product in a particular packaging configuration or in particular flavor, but may nonetheless honor the coupon if redeemed in connection with the sale of the product in some other package or flavor. In addition to using the detailed sales information for determining whether a redemption was "close enough," the manufacturer may also use the information

to persuade the retailer to stock a particular flavor or product configuration, thereby allowing the manufacturer to increase the amount of shelf space allocated to it in the retailer's store.

If at step **624** the manufacturer does not accept the particular coupon that was audited, no payment is made to the third party verification service, and accordingly no payment is made to the retailer in connection with the redemption of the rejected coupon (step **636**). In another embodiment, the third party verifier may decide unilaterally to reimburse the retailer for the unverified coupon. In such a case, the third party verifier may seek reimbursement from the manufacturer by providing the manufacturer with a report that identifies such an unverified coupon.

It can be appreciated that some overlap may occur between product sales recorded in the point of sale subsystem **112** and the audit coupons removed from the secure storage container by the coupon verification personnel. For example, and in particular where product sales information is downloaded at the time the coupon verification personnel arrive at the retailer, or where such information is provided to the coupon redemption system **104** continuously, discounts extended by the retailer to consumers may be entered in the point of sale system **112** that do not have corresponding audit coupons in the secure storage container. For example, information may have been downloaded to the coupon redemption system **104** before the cashier (or other individual) has had the opportunity to place the redeemed coupon associated with such a sale in the secure storage container (which redeemed coupon then becomes the verifying or audit coupon) for review by the coupon verification personnel. In such instances, product sales and associated discounts for which

no match with an audit coupon was made may be retained in the coupon redemption subsystem **104** until a subsequent coupon verification session.

A further explanation of such overlap is provided by the following example. Assume that the coupon redemption subsystem **104** conducts a first audit session of a first plurality of coupons and then conducts a second audit session of a second plurality of coupons. The first plurality of coupons includes a number of sets of audit coupons, with each set being associated with a different customer and a corresponding different transaction involving one or more coupons for that customer. Likewise, the second plurality of coupons includes a number of sets of coupons, with each set involving a different customer redeeming one or more coupons. At a desired or predetermined time at which these first plurality of coupons are located in the secure storage container, the coupon verification entity removes all of these first plurality of coupons for verification using the coupon redemption subsystem **104**. During the time that the coupon redemption subsystem **104** is conducting its verification process associated with the first plurality of coupons, the POS subsystem **112**, as an example, inputs or otherwise provides coupon information for a number of customers totaling ten different coupons. Consequently, the coupon redemption system **104** has coupon information for at least ten coupons for which there will be no match or correspondence with the coupons then being audited during the first audit session. The coupon information for each of these ten coupons is stored in a properly identified file or storage area for subsequent access and comparison during the second audit session involving the second plurality of audit coupons. In that regard, it is anticipated that the second plurality of audit coupons includes coupons having information corresponding to the overlap coupon information that

is kept in the properly identified storage area of the coupon redemption subsystem **104**. As a result, such previously stored information is also invoked or relied on in conducting the verifying procedures or steps previously discussed. In the present example, the ten coupons for which there was no match or correspondence during the first audit session are taken into account during the second audit session. Under usual circumstances, the coupon information associated with each of these ten coupons is expected to be matched with the audit coupons that are part of the second audit session. As can be understood, there may be overlap coupon information input from the POS subsystem **112** during each of the coupon audit sessions conducted by the coupon redemption subsystem **104**, with such overlap coupon information to be taken into account during one or more later coupon audit sessions.

With reference now to **Fig. 8**, the flow of information between the parties involved in the redemption of a coupon according to the present invention is illustrated. Initially, the manufacturer **800** issues or authorizes the issuance of coupons to the consumer **804**. The consumer selects the coupons that he or she wishes to use, and redeems them in connection with the purchase of a product **808**. At step **812**, the retailer extends a discount to the consumer in the amount of the face value of the coupon and takes possession of the coupon. Audit or verifying coupons are then provided to the third party verification service for verification of proper redemption **816**. Information collected during the verification process is stored in the data center **120** (step **820**) and made available to the manufacturer. Accordingly, the manufacturer is provided with feedback concerning the redemption of authorized coupons. This feedback allows the manufacturer to adjust its promotions in response to consumer demand. The feedback to the manufacturer by the present invention

is provided very quickly, as the information concerning the coupon redemption is collected electronically, and may, according to one embodiment, be accessed by the manufacturer almost immediately following collection.

In accordance with the present invention, methods and apparatus for verifying the proper redemption of manufacturer coupons are provided. The invention in its broader aspects relates to an economical method and apparatus for providing detailed information concerning the redemption of coupons shortly after redemption takes place. In addition, such methods and apparatus allow the prompt reimbursement of retailers for discounts extended to consumers in connection with the use of coupons.

The foregoing discussion of the invention has been presented for purposes of illustration and description. Further, the description is not intended to limit the invention to the forms disclosed herein. Consequently, variations and modifications commensurate with the above teachings, within the skill and knowledge of the relevant art, are within the scope of the present invention. The embodiments described hereinabove are further intended to explain the best mode presently known of practicing the invention and to enable others skilled in the art to utilize the invention in such or in other embodiments and with various modifications required by their application or use of the invention. It is intended that the appended claims be construed to include alternative embodiments to the extent permitted by the prior art.